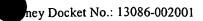
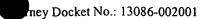
## What is claimed:

	1	1. A vector comprising from 5' to 3':			
	2	a) a packaging sequence;			
	3	b) a heterològous insert sequence or restriction sites for insertion of a heterologous			
	4	sequence; and			
	5	c) a 3' long terminal repeat (LTR) sequence,			
	6	wherein at least two codons of the packaging sequence are altered so as to reduce			
	7	formation of fusion polypeptides encoded by the packaging sequence or a portion thereof,			
	8	and the heterologous insert sequence.			
	9				
	10	2. The vector of claim 1, wherein at least two ATG codons of the packaging			
	11	sequence have been altered.			
	12				
	13	3. The vector of claim 2, wherein the ATG initiation codon of the packaging			
<b>3</b>	14	sequence and at least one internal ATG codon of the packaging sequence have been altered.			
	15				
	16	4. The vector of claim 1, wherein the packaging sequence is a gag sequence.			
	17				
H	18	5. The vector of claim 4, wherein the gag sequence is an amino-terminal portion			
	19	of the gag gene.			
:	20				
	21	6. The vector of claim 4, wherein the gag sequence comprises the nucleotide			
	22	sequence of SEQ ID NO:2, or a portion thereof.			
	23				
	24	7. The vector of claim 3, wherein at least two internal ATG codons of the			
	25	packaging sequence have been altered.			
	26				
	27	8. The vector of claim 3, wherein the internal codon which is altered is the codor			
	28	at residues 1097-1099 of SEQ ID NO:1.			
	29				



30	9. The vector of claim 3, wherein the internal codon which is altered is the codo			
31	at residues 1589-1591 of SEQ ID NO:1.			
32				
33	10. The vector of claim 3, wherein the internal codon at residues 1097-1099 and			
34	the internal codon at residues 1589-1591 of SEQ ID NO:1 have been altered.			
35				
36	11. The vector of claim 2, wherein one, two or all of the nucleotides of the ATG			
37	codon(s) have been altered.			
38				
39	12. The vector of claim 1, wherein the vector includes a heterologous insert			
<b>40</b>	sequence.			
<u>の</u> 西 41				
回 41 四 42 回 43	13. A vector comprising from 5' to 3':			
TJ 43	a) a packaging sequence, wherein at least one ATG codon of the packaging sequence			
∭ 44 ₩	has been altered;			
# 45	b) a heterologous insert sequence or restriction sites for insertion of a heterologous			
46	sequence; and			
# 45 □ 46 □ 47 □ 48 □ 48	c) a 3' LTR sequence, wherein the 3' LTR comprises a proviral recovery sequence.			
48				
49	14. The vector of claim 13, wherein at least two ATG codons of the packaging			
50	sequence have been altered.			
51				
52	15. The vector of claim 14, wherein the ATG initiation codon of the packaging			
53	sequence and at least one internal ATG codon of the packaging sequence have been altered.			
54				
55	16. The vector of claim 13, wherein the packaging sequence is a gag sequence.			
56				
57	17. The vector of claim 16, wherein the gag sequence is an amino-terminal			
58	portion of the gag gene.			
59				

60	18.	The vector of claim 14, wherein at least two internal ATG codons of the
61		equence have been altered.
62	P	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
63	19.	The vector of claim 14, wherein the internal codon which is altered is the
64		dues 1097-1099 of SEQ ID NO:1.
65	000011 01 1051	1000 1057 1055 01 02Q 22 110.11
66	20.	The vector of claim 14, wherein the internal codon which is altered is the
		dues 1589-1591 of SEQ ID NO:1.
67	codon at resi	dues 1389-1391 of SEQ ID 140.1.
68 69	21.	The vector of claim 14, wherein the internal codon at residues 1097-1099 and
		codon at residues 1589-1591 of SEQ ID NO:1 have been altered.
口70 切71 近72 几	uie iiiteinai t	odoli at residues 1389-1391 of SEQ ID NO.1 have been aftered.
型/1 型	22	The content of all in 14 colors all of the content to 5 the ATC and an (a)
72 N	22.	The vector of claim 14, wherein all of the nucleotides of the ATG codon(s)
เมี 73 เมื เมื 74	have been al	tered.
<sup>™</sup> 75	23.	The vector of claim 13, wherein the vector includes a heterologous insert
<b>□</b> 76	sequence.	
77 		
口 76 片 77 囚 78 片 78	24.	The viral vector of claim 13, further comprising a bacterial origin of
79	replication.	·
80		
81	25.	The viral vector of claim 24, wherein at least a portion of the bacterial origin
82	of replication	has been removed.
83		
84	26.	The viral vector of claim 13, wherein the bacterial marker sequence is a
85		
86		
87	27.	The viral vector of claim 13, wherein the proviral recovery sequence is
88	located withi	in a portion of the 3' LTR which duplicates upon integration.
89		
an	28	A vector comprising from 5' to 3':



91	a) a p	packaging sequence, wherein at least one ATG codon of the packaging sequence			
92	has been altered;				
93	b) a h	neterologous insert sequence or restriction sites for insertion of a heterologous			
94	sequence;				
95	c) a bacterial marker sequence, wherein the bacterial marker is less than 600 basepairs				
96	in length; and	d			
97	3' LTR sequence, wherein the 3' LTR comprises a proviral recovery sequence.				
98					
99	29.	A viral vector comprising:			
_100		a) a packaging sequence;			
<u></u>		b) a heterologous insert sequence;			
100 100 1001 1002		c) a bacterial marker sequence, wherein the bacterial marker sequence is less			
1903 1904	than 600 basepairs in length;				
∏104		d) a 3' LTR comprising a proviral recovery sequence,			
105 105		wherein the vector comprises and can express a heterologous insert sequence			
<b>≟</b> 106	greater than about 8 kilobases in length.				
<u>⊨</u> 107					
円06 口 円07 円08	30.	The viral vector of claim 29, wherein the packaging sequence is altered at an			
H109	initiation codon of the packaging sequence and at least one potential initiation codon of the				
110	packaging sequence.				
111					
112	31.	The viral vector of claim 29, further comprising a bacterial origin of			
113	replication.				
114					
115	32.	The viral vector of claim 31, wherein at least a portion of the bacterial origin			
116	of replication has been removed.				
117					
118	33.	The viral vector of claim 29, wherein the bacterial marker sequence is a			
119	bleomycin marker sequence.				
120					